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President

April 1, 2016

California Department of Water Resources
Attn: Lauren Bisnett, Draft GSP Emergency Regulations Public Comment
P.O. Box 942836
Sacramento, CA 94236
Via email: sgmps@water.ca.gov

Re: Draft GSP Emergency Regulations Public Comment

Dear Ms. Bisnett:

The Western States Petroleum Association (“WSPA”) appreciates the opportunity to comment on the Draft Groundwater Sustainability Plan (“GSPs” or “Plans”) Emergency Regulations issued pursuant to the Sustainable Groundwater Management Act (“SGMA”). These regulations will provide critical direction to Groundwater Sustainability Agencies (“GSAs” preparing such plans.

GENERAL COMMENTS:

- A. The GSP regulations should provide precise focus on groundwater resources that are actually capable of contributing to achievement of SGMA’s groundwater sustainability goals.**

Although WSPA recognizes the goals of SGMA and the general principles outlined in proposed Section 350.2, the GSP regulations also should acknowledge that SGMA was not intended to address and resolve all water challenges, including limitations on the availability or use of much of California’s water due to low water quality, such as naturally occurring minerals, geology, such as low permeability and porosity, dedication of surface water for power generation or wildlife habitat and economic and infrastructure constraints. Neither was it intended to supplant existing laws and regulatory programs or interfere with existing water and property rights. Rather SGMA was intended to focus on the sustainability of groundwater for water supply purposes. In that light, the GSP regulations should focus SGMA’s planning, management and regulatory efforts on groundwater resources that can feasibly be managed to meet this objective.

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In order to achieve that focus, the regulations should acknowledge that there are different categories of water bearing zones that do not—and are not expected to—contribute to SGMA’s groundwater sustainability goals and should not be included in establishing basin Sustainability Management Criteria. Many such categories are associated with activities regulated for purposes other than groundwater supply, although those activities are heavily regulated to protect the quality of the water supply. Other water bearing zones are simply unavailable or infeasible to use for water supply purposes. These categories may be considered in the GSP’s baseline assessment of basin wide groundwater resources, but they should not be included in the GSP’s water supply sustainability planning elements, such as the water budget, sustainability goals and minimum thresholds for the basin.

Two categories of groundwater that are separately regulated and designated for purposes other than groundwater supply include groundwater in aquifers that:

- exceed 10,000 mg/l TDS and, therefore, do not meet the federal Safe Drinking Water Act’s definition of Undergrounds Source of Drinking Water or
- have been exempted, after extensive public and technical review, in the Underground Injection Control process that involves DOGGR, the State Water Board and U.S. EPA

In the context of SB 1281 implementation, the State Water Board has concluded that neither category of water listed above is suitable for domestic or irrigation purposes. See Letter of Jonathan Bishop to Dr. Steven R. Bohlen (August 19, 2015). Pursuant to Senate Bill (SB) 1281, oil and gas well owners must report the source and volume of produced water and injected water in oil and gas operations; these reporting requirements include the volume of untreated water that is considered suitable for domestic or irrigation purposes.

In addition to categories of water that have been designated or set aside for other regulatory purposes, the quality of much groundwater in California is simply too low for it to be considered suitable and available to contribute to SGMA’s goals of protecting and maintaining sustainable groundwater resources for water supply purposes. In order to establish valid sustainability criteria for each basin, the GSP regulations must acknowledge this fact.

These categories of water-bearing zones, and other similarly regulated or designated aquifers should be acknowledged in the GSP baseline assessment of groundwater resources, including those described in Subarticle 2 “Basin Setting” for the GSP. However, the GSP regulations should clarify that the water in these zones is not to be included in the regulatory Sustainable Management Criteria to be set in the GSP, including the sustainability goals, undesirable results, minimum thresholds and measurable objectives (Subarticle 4). Further, the provisions for Monitoring Networks set out in Subarticle 4 should be applied to the same groundwater resources covered in the Sustainability Management Criteria. Finally, in this regard, groundwater resources that are not properly included in the Sustainable Management Criteria should not be considered “principal aquifers” as used in the draft GSP regulations.

Similarly, the GSP regulations should clarify that GSA authority in relation to well spacing, extraction and other regulatory requirements placed in GSPs is limited to water supply wells and water supply extraction activities and does not extend to oil and gas well or underground injection well placement and the related oil and gas exploration, enhanced oil recovery and underground injection activities that are regulated by the relevant agencies with jurisdiction over those activities.

To summarize, regulated activities affecting certain water-bearing zones that are recognized or designated for non-water supply uses by State and Regional Water Boards, EPA, DOGGR and other agencies—as well as zones with water of insufficient quality to serve SGMA’s purposes—should be acknowledged in the GSP’s initial groundwater resources assessment with the affirmative recognition that such waters will not be the subject of the regulatory planning effort addressed in the GSPs. Instead, that planning effort and the adoption of Sustainable Management Criteria should focus on aquifers that are used or that have sufficient quality, quantity, proximity and available infrastructure that they can technically and economically serve, as a source of domestic, irrigation or municipal water supply and related extraction activities. See Draft Section 354.14(4)(E).

Water-bearing zones described above should be recognized as hydrologically and geologically distinct—subject to different uses (e.g., mineral extraction or underground injection) and priorities than the groundwater that is targeted by SGMA for sustainable management for water supply purposes. These lower priority aquifers should be set aside from active management under GSPs by not including them in the Sustainable Management Criteria or, as appropriate, designating them as separate management areas, as consistent with our comments below. These refinements of the GSP regulations are necessary to achieve the objectives of SGMA but also to minimize the regulatory burden on the regulated community and the extensive administrative that could be imposed on Groundwater Sustainability Agencies.

B. Water mixed with oil in hydrocarbon-bearing zones that is extracted during the oil and gas production process is not subject to SGMA.

In contrast to the categories of water discussed in section A, water intermixed with hydrocarbons in subsurface hydrocarbon bearing zones where oil and gas operations are conducted is not properly considered “groundwater” that is regulated under SGMA; this should be excluded altogether from Groundwater Sustainability Plans. During oil and gas operations, this hydrocarbon and water mixture in these zones is extracted together. After the mixture is taken to the surface, water is separated from the oil and gas in the production process, at which point it becomes “produced water.” Under state law, the California Department of Conservation, Division of Oil and Gas and Geothermal Resources (DOGGR), has exclusive jurisdiction to regulate subsurface oil and gas operations. Therefore, a GSA would not be authorized to regulate such operations.¹ Of course, DOGGR collaborates daily with the State Water Board on water supply and quality matters.

¹ DOGGR regulations for all oil and gas wells set the standards for well construction, operation and abandonment. See generally Pub. Res. Code, Div. 3; 14 C.C.R., Div. 2, Ch. 4; § 3106(a) (DOGGR “shall so supervise the drilling, operation, maintenance, and abandonment of wells ... that are within an oil and gas field...”); Attorney General Opinion No. 76-32 (Aug. 24, 1976) (“State laws on drilling and production activities of oil, gas and geothermal resources wells for the

In addition, the rights to extract water in hydrocarbon-bearing zones are attached to the subsurface mineral rights exercised in the exploration and production of oil and gas. These rights are separate and distinct from common law rights to groundwater generally held by overlying landowners. Thus, in the context of water rights, the water mixed with oil and gas in hydrocarbon bearing zones that is extracted in the production process is not considered part of “groundwater” that is covered by an overlying landowner’s groundwater rights.² Finally, hydrocarbon bearing zones are not “completely saturated with water” as SGMA defines groundwater, and hydrocarbon bearing zones generally are not hydrologically connected to aquifers that serve as public water supplies. For all these reasons, water mixed with hydrocarbons and subject to extraction from hydrocarbon bearing zones in the oil and gas production process would not be properly considered groundwater subject to SGMA and included in a GSP. Of course, once produced water is generated in the post-extraction production process at the surface, its management, particularly re-use efforts, has a significant role in groundwater conservation efforts consistent with the intent of SGMA. This role is discussed later in the next section of these comments.

C. The GSP regulations should ensure regulatory effectiveness by avoiding unnecessary and overburdensome duplication of actions taken by federal, state and local agency actions with regulatory jurisdiction and expertise.

Where other federal, state or local agencies regulates activities that could be affected by the GSPs, GSAs should be directed to coordinate with such agencies and incorporate their regulatory determinations, without revisiting and adopting additional, potentially inconsistent or duplicative regulatory requirements. The GSP regulations should direct GSAs to rely on and not revisit or duplicate activities and regulatory determinations made by other agencies with jurisdiction over resources or activities. GSAs should not become “super agencies” adding additional and unnecessary complexity, duplication, inconsistency and cost to the already complex regulatory environment.

For example, the State and Regional Water Boards have regulatory jurisdiction over water quality; the Department of Fish and Wildlife has jurisdiction over fish and wildlife resources and the Department of Toxic Substances Control has jurisdiction over hazardous waste. In the context of local authority and expertise, Kern County certified an Environmental Impact Report in 2015 in support of the County’s proposed revisions to its zoning ordinance focused on local oil and gas permitting. Based

purpose of conserving and protecting those resources take precedence over local regulations, particularly where the state law approves of or specifies plans of operation, methods, materials, procedures, or equipment to be used by the well operator or where activities are to be carried out under direction of the state Supervisor.”). The “State has so fully occupied [the underground phases of oil and gas activities] that there is no room left for local regulation.” *Id.* at 477-478.

² See *Lynch v. State Bd. of Equalization* (1985) 164 Cal.App.3d 94, 100 (water is generally associated with oil and gas deposits or reservoirs and may be produced with oil in the production of oil and gas or in a bona fide mining operations.). Water district(s) responsible for enforcing groundwater basin adjudications have excluded this water (“water that is being produced with oil in the production of oil and gas or in a bona fide mining operation”) from the definition of groundwater. See, e.g., <http://edmsidm.mwdh2o.com/idmweb/cache/MWD%20EDMS/003697466-1.pdf>, , p. xxiii, visited March 22, 2016. The fact that this subsurface water-hydrocarbon mixture is not considered groundwater that is subject to the California water rights regime further indicates that it would not be appropriately included in the regulatory elements of a GSP.

upon extensive analysis, the EIR contains several mitigation measures related to water management, including increasing re-use of produced water and incorporation of the results of oil and gas-related water use reporting under SB1281 in water conservation efforts, and requiring oil and gas applicants to work with the County on aspects of GSP development.. GSAs that prepare GSPs covering the area addressed by the Kern EIR should take account of and incorporate the relevant environmental analysis, planning and coordination required by the mitigation measures adopted in the Kern EIR. The GSP regulations should ensure that GSAs are empowered and required to incorporate these requirements in the relevant GSPs rather than imposing potentially inconsistent, duplicative requirements.

WSPA Supports SGMA's Focus on Providing Local GSA Control.

Recognizing, enabling and deferring to local authority to form and manage GSAs, including the GSP, is specifically authorized by SGMA. Gov. Brown and DWR Director Mark Cowin have made repeated public statements to this effect, beginning with the governor at the SGMA signing ceremony: "A central feature of these bills is the recognition that groundwater management in California is best accomplished locally. Local agencies will now have the power to assess the conditions of their local water basins and take necessary steps to bring those basins in a state chronic long-term overdraft into balance."

SPECIFIC COMMENTS.

Our remaining comments are keyed to the major provisions of the regulations.

Section 352.4. Best Management Practices. Best Management Practices developed by DWR and GSAs should be required to establish technical and economic feasibility before they are approved and implemented. Also, subsection (c) should be clarified that revisions to DWR's BMPs do not require GSAs to adopt DWR them, simply to consider them in the next review.

Article 5. Plan Contents

The proposed regulations would establish a number of information requirements in Article 5, Subarticle 2 that would be used in developing Sustainable Management Criteria for each Basin. These criteria would include setting a Sustainability Goal and establishing Undesirable Results, Minimum Thresholds and Measurable Objectives for the basin. Because these criteria will be informed by the type and quality of information to be considered, WSPA supports the consideration of additional information as appropriate to be considered in development of GSPs as well as the clarification of a number of provisions. WSPA requests that Subarticles 2 and 3 be revised as follows:

Subarticles 2 and 3

The GSP regulations should expressly require clear delineation of areas where the groundwater is and is not being used (as of January 1, 2015) to supply public water systems for domestic use, where groundwater is and is not being used for agricultural supply, and where no groundwater is being used. This is necessary so that waters can be properly prioritized for management.

Section 354.8 Description of Plan Area. Although Section 354.8(a)(4) and (b) use the term “water use sector”, and Section 354.14(4)(E) refers to “Identification of the aquifers used for domestic, irrigation, or municipal water supply,” these sections should be more specific. This would help inform both the plan description required under Section 354.8(g) and the hydrogeologic conceptual model required under Section 354.14.

In addition, Subsection (a)(4) should be revised to state:

(4) Designation of existing land uses and the identification of each water use sector and water source type, specifically including areas where (i) groundwater is used, as of January 1, 2015, to supply public water systems (as defined under the federal Safe Drinking Water Act) for domestic use, (ii) where groundwater is used, as of January 1, 2015, to supply agricultural irrigation, or (iii) where there is no groundwater suitable or available for water supply purposes.

Similarly, Section 354.14(a)(1) should be expanded to state:

(1) Regional geologic and structural setting of the basin and surrounding area, including formations or areas with no groundwater suitable or available for water supply. As revised, Section 354.14(a)(4)(E) might also state: “Identification of the aquifers used for domestic, irrigation, or municipal water supply, as well as areas where groundwater is not used for such purposes.

This change is necessary to ensure GSPs focus on water that is actually in use.

Section 354.14 Hydrogeologic Conceptual Model. Section 354.14(a)(4)(D) and (E) should be revised as follows. In addition to identifying aquifers used for domestic, irrigation, or municipal water supply, these subsections should include a summary of regulatory designations for principal aquifers by designated beneficial use in the relevant basin plans and describe known conditions in relation to relevant regulatory limitations, definitions and local management plans. As used in this section and elsewhere in the GSP regulations, principal aquifers should not include aquifers that are infeasible to access or unavailable to contribute for water supply purposes.

In addition, the evaluation of basin conditions in GSPs should take account of physical, geologic and hydrogeologic conditions beyond those included in Bulletin 118 (2003). Bulletin 118 considers criteria such as storage capacity, river locations, geomorphology, bedrock composition, geographic coordinates, recharge sources, county lines, etc. However, this information is not complete for purposes of the analysis SGMA requires. The most notable omissions are the variability of groundwater quality with depth, and the variable regulatory frameworks and authorities that already regulate virtually all aspects of water extraction and use are represented in Basin Plans adopted by Regional Water Quality Control Boards. The quality of groundwater sources at various depths has marked and significant variability, which differentiates and determines its ultimate end use (e.g., municipal, industrial, agricultural), the applicable regulatory framework and the potential for each groundwater source to contribute to SGMA's sustainability criteria. Hence, it is vital that inclusion of available subsurface water quality be consistently considered in addition to Bulletin 118 basin criteria. Furthermore, as described elsewhere, reference to applicable federal, regional and local regulatory frameworks must also be included to prevent inter-agency jurisdictional confusion and implementation conflict.

Although Section 354.14(f) requires the hydrogeologic model to address interconnected surface water and groundwater-dependent ecosystems, the plan requirements under Section 354.8 and the water budget requirements for surface water supply and reliability under Section 354.18(b)(3)(C) and the Annual Report under Section 356.4(b)(3) should specifically identify the amounts and locations of surface water that is reserved for wildlife habitat ecosystems, so that use is clearly defined in the plan. This is important since both basin and statewide contingency plans under Section 354.44(b) would need to consider reallocation of the significant amount of fresh water reserved wildlife habitat. This dedication of surface water to ecosystems should be reflected in Section 354.16(d)(6) and in the monitoring program in Section 354.34(h)(6), both of which are currently limited only to reductions of groundwater supplied to habitat, rather than the effect that ecosystem surface water dedication may have on groundwater drawdown and other beneficial users.

Section 354.16 Basin Conditions. Section 354.16(d)(1) incorrectly equates "waste discharge requirements" with "groundwater contamination sites". Waste discharge requirements are approved for contaminated sites to help ensure that they will not impact usable groundwater. Sites with waste discharge requirements should be included in a separate subsection, and publicly owned treatment works should be added too, to the extent the foregoing overlie usable groundwater. For example, cleanup activities that do not overlie or affect groundwater should not be addressed in the GSP.

Section 354.16(d) should be revised to read as follows:

- (1) The location of known groundwater contamination sites and plumes, including applicable current or historical waste discharge requirements, known historical or ongoing cleanup activities, and superfund sites in proximity to usable groundwater.
- (2) The location of current or historical publicly owned treatment works in proximity to usable groundwater.
- (3) The location of facilities with current or historical waste discharge requirements in proximity to usable groundwater.

Section 354.18 Water Budget. The requirements for the water budget should take into account the same criteria that we propose to add to Section 354.14. To the extent that the Water Budget is required to account for all sources of groundwater, this process should take account of their water quality, availability and regulatory status. Aquifers that are actually or effectively unavailable for water supply are not “principal aquifers” as that term is used in the GSP regulations; such aquifers should be labeled in the Water Budget as lowest priority for further investigation and inclusion in the water budget. Further, as discussed above, aquifers designated as “exempt” in the DOGGR process, aquifers that exceed 10,000 mg/l Total Dissolved Solids (TDS) and aquifers that are otherwise infeasible to access or unavailable for water supply purposes should be acknowledged in the Water Budget but excluded from the regulatory elements of GSPs set out in Subarticle 3 Sustainable Management Criteria.

Section 354.20. Management Areas. WSPA strongly supports the management area concept and requests that it be developed in more detail to provide the needed focus discussed in our general comments and the regulatory flexibility that SGMA requires. While we acknowledge the objective of establishing sustainability goals for each basin, many portions of a basin have unique characteristics that will necessitate different criteria than an overarching sustainability goal for the entire basin. For example, it should be clarified that management areas may be defined by hydrogeologic characteristics of distinct aquifers, rather than by surface area only. Further, the criteria added to Sections 354.14 and 354.18 should be taken into account as factors that justify the establishment of separate management areas.

Subarticle 3. Sustainable Management Criteria

These criteria should reflect the necessary focus on water supply aquifers and activities that affect them, as discussed above. Specifically, the baseline assessment, sustainability goals, minimum thresholds and measurable objectives and interagency collaboration should reflect this focus.

Section 354.28. The critical parameters and minimum thresholds under Section 354.28 should be defined with respect to changes from and after January 1, 2015—the baseline distinction between historical and present conditions. For example, the term “degraded” should reflect a “significant and unreasonable” worsening of groundwater quality after January 1, 2015. Further, naturally poor groundwater should not be labeled “degraded” but should be acknowledge as of low or no utility for carrying out SGMA’s sustainability objectives for water supply purposes. Recognizing the baseline as the starting point for setting critical parameters and minimum thresholds is important because these critical parameter and minimum thresholds are then used to set the measurable objectives and interim milestones under Section 354.30. Those, as well as the projects and management actions under Section 354.44, also must be set against a January 1, 2015 baseline

CONCLUSION

WSPA supports the groundwater conservation objectives of SGMA and appreciates your consideration of our comments. If you have any questions, please contact me at this office or Bob Poole of my staff at (805) 305-5086 or email: bpoole@wspa.org

Sincerely,

